REMARKS

In response to the final Office Action of October 25, 2010, Applicants have amended the claims, which when considered with the following remarks, is deemed to place the present application in condition for allowance. Favorable consideration and allowance of all pending claims is respectfully requested. The amendments to the claims have been made in the interest of expediting prosecution of this case. Applicants reserve the right to prosecute the same or similar subject matter in this or another application.

Claims 64-83 are pending in this application. By this Amendment, Claim 1has been amended to incorporate the limitation of Claim 78 and also to recite that "the plurality of leading candidate fuel additive composition samples is at least 20", Claim 78 has been cancelled and new Claims 84 and 85 have been added. Support for amended Claims 1, 18 and 20 and new Claims 33-35 can be found throughout the specification, e.g., page 16, lines 19 and 20. Applicants respectfully submit that no new matter has been added to this application. Moreover, it is believed that the claims as presented herein place the application in condition for allowance.

In the last Office Action, the Examiner rejected Claims 64-66, 72 and 80 under 35 U.S.C. §103(a) as being obvious over Heneghan et al., JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER TRANSACTIONS OF THE ASME ("Heneghan et al.") in view of Bartz et al. U.S. Patent No. 5,814,110 ("Bartz et al.").

Nowhere do the combination of Heneghan et al. and Bartz et al. disclose or suggest a "high throughput method for screening fuel additive composition samples, under program control, comprising: (a) conducting molecular modeling of at least one fuel additive to formulate a leading candidate fuel additive composition sample for testing; (b) containing a plurality of the

leading candidate fuel additive composition samples in a plurality of test receptacles, each sample comprising at least one fuel additive, wherein the plurality of leading candidate fuel additive composition samples is at least 20; (c) measuring the deposit formation of each sample to provide deposit formation data results for each sample; and, (d) outputting the results of step (c) wherein in step (d) the results of step (c) for each sample are transmitted to a computer, wherein the computer compares the results with a predetermined value delimiting a failure or passing of the results, and the computer identifies failed samples to preclude further testing of the failed samples", as presently recited in amended Claim 64.

Rather, Heneghan et al. disclose the study of jet fuel thermal stability (carbon deposition rate), dissolved oxygen consumption and methane production for three baseline jet fuels and three fuels blended with additives using a flowing, single-pass heat exchanger test rig. Heneghan et al. further disclose in item 4 on page 481 that in order to measure the carbon deposition of the sample, the test section of the rig is removed, drained, cut into 25 mm or 50 mm length segments, rinsed with hexane, dried in a vacuum oven and analyzed for carbon deposits on a Leco RC-412 multiphase carbon analyzer. At best, Heneghan et al. therefore merely disclose analyzing three baseline jet fuels and three blended fuels. Thus, not only do Heneghan et al. not disclose the step of conducting molecular modeling of at least one fuel additive to formulate a leading candidate fuel additive composition sample for testing, Heneghan et al. likewise do not disclose containing a plurality of at least 20 of the leading candidate fuel additive composition samples in a plurality of test receptacles. As acknowledged by the Examiner, Heneghan et al. also fails to disclose wherein in step (d) the results of step (c) for each sample are transmitted to a computer, wherein the computer compares the results with a predetermined value delimiting a failure or passing of

the results, and the computer identifies failed samples to preclude further testing of the failed samples. Accordingly, as the primary goal of Heneghan et al. is to carry out a simple jet fuel test on *six samples* in a single-pass heat exchanger test rig one skilled in the art would not be motivated to modify the jet fuel study and arrive at the presently claimed "high throughput method for screening fuel additive composition samples, under program control, comprising: (a) conducting molecular modeling of at least one fuel additive to formulate a leading candidate fuel additive composition sample for testing; (b) containing a plurality of the leading candidate fuel additive composition samples in a plurality of test receptacles, each sample comprising at least one fuel additive, wherein the plurality of leading candidate fuel additive composition samples is at least 20; (c) measuring the deposit formation of each sample to provide deposit formation data results for each sample; and, (d) outputting the results of step (c), wherein in step (d) the results of step (c) for each sample are transmitted to a computer, wherein the computer compares the results with a predetermined value delimiting a failure or passing of the results, and the computer identifies failed samples to preclude further testing of the failed samples."

Bartz et al. do not cure and are not cited as curing the deficiencies of Heneghan et al. Rather, Bartz et al. are cited for the disclosure of molecular modeling. As such, even by combining Bartz et al. with Heneghan et al., one skilled in the art would not arrive at the presently claimed invention. Accordingly, amended Claims 64-66, 72 and 80 and new Claims 84 and 85 are believed to be nonobvious, and are therefore patentable, over Heneghan et al. and Bartz et al., no matter how these references are considered or combined. Thus, withdrawal of the rejection of Claims 64-66, 72 and 80 under 35 U.S.C. §103(a) is respectfully requested.

The Examiner has rejected Claims 64-69, 72-75 and 80 under 35 U.S.C. §103(a) as being unpatentable over Heneghan and Bartz et al. as applied to Claims 64-66, 72 and 80 above, and further in view of Cherpeck U.S. Patent No. 5,399,178 ("Cherpeck").

The foregoing deficiencies of Heneghan et al. and Bartz et al. discussed above apply with equal force to this rejection. Cherpeck does not cure the deficiencies of Heneghan et al. and Bartz et al. Rather Cherpeck simply disclose in Tables I and II the analysis of five different samples in a single-cylinder engine tests. As such, even by combining Cherpeck with Heneghan et al. and Bartz et al., one skilled in the art would not arrive at the presently claimed invention. Accordingly, amended Claims 64-69, 72-75 and 80 and new Claims 84 and 85 are believed to be nonobvious, and are therefore patentable, over Heneghanet al., Bartz et al. and Cherpeck, no matter how these references are considered or combined. Thus, withdrawal of the rejection of Claims 64-69, 72-75 and 80 under 35 U.S.C. §103(a) is respectfully requested.

The Examiner has rejected Claims 64-69, 72-77 and 79-81 under 35 U.S.C. §103(a) as being unpatentable over Heneghan, Bartz et al. and Cherpeck '178 as applied to Claims 64-69, 72-75 and 80 above, and further in view of Burow et al. U.S. Patent Publication No. 2002/0090320 ("Burow et al.").

The foregoing deficiencies of Heneghan et al., Bartz et al. and Cherpeck '178 discussed above apply with equal force to this rejection. Burow et al. do not cure the deficiencies of Heneghan et al., Bartz et al. and Cherpeck '178 Rather Burow et al. simply disclose methods and systems for high throughput processing, e.g., flexible, efficient, and robust high throughput processing, such as screening of chemical and/or biochemical libraries. As such, even by combining Burow et al. with Heneghan et al., Bartz et al. and Cherpeck '178, one skilled in the

art would not arrive at the presently claimed invention. Accordingly, amended Claims 64-69, 72-77 and 79-81 and new Claims 84 and 85 are believed to be nonobvious, and are therefore patentable, over Heneghanet al., Bartz et al., Cherpeck '178 and Burow et al., no matter how these references are considered or combined. Thus, withdrawal of the rejection of Claims 64-69, 72-77 and 79-81 under 35 U.S.C. §103(a) is respectfully requested.

The Examiner has rejected Claims 64-69, 71-75, 80, 82 and 83 under 35 U.S.C. §103(a) as being unpatentable over Heneghan, Bartz et al. and Cherpeck '178 as applied to Claims 64-69, 72-75 and 80 above, and further in view of Cherpeck U.S. Patent No. 5,306,315 ("Cherpeck '315").

The foregoing deficiencies of Heneghan et al. and Bartz et al. discussed above apply with equal force to this rejection. Cherpeck '315 does not cure the deficiencies of Heneghan et al., Bartz et al. and Cherpeck '178. Rather Cherpeck '315 simply disclose in the analysis of five different samples for thermal stability by thermogravimetric analysis. As such, even by combining Cherpeck '315 with Heneghan et al., Bartz et al. and Cherpeck '178, one skilled in the art would not arrive at the presently claimed invention. Accordingly, amended Claims 64-69, 71-75, 80, 82 and 83 and new Claims 84 and 85 are believed to be nonobvious, and are therefore patentable, over Heneghanet al., Bartz et al., Cherpeck '178 and Cherpeck '315, no matter how these references are considered or combined. Thus, withdrawal of the rejection of Claims 64-69, 71-75, 80, 82 and 83 under 35 U.S.C. §103(a) is respectfully requested.

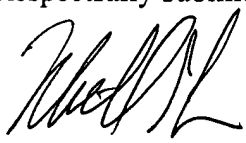
The Examiner has rejected Claims 64-69, 72-75, 78 and 80 under 35 U.S.C. §103(a) as being unpatentable over Heneghan and Bartz et al. as applied to Claims 64-66, 72 and 80 above, and further in view of Chadwick U.S. Patent Publication No. 2004/0230397 ("Chadwick").

The foregoing deficiencies of Heneghan et al. and Bartz et al. discussed above apply with equal force to this rejection. Chadwick does not cure the deficiencies of Heneghan et al. and Bartz et al. Rather Chadwick simply discloses methods of doing business and systems for implementing those methods which improve the effectiveness and success of the research and development of technology such as pharmaceuticals, biotechnology, agrochemicals, medical technology, and genomics. Nothing in Chadwick would lead one skilled in the art to look to modify a high throughput business method to arrive a high throughput method for screening fuel additive composition samples. As such, even by combining Chadwick with Heneghan et al. and Bartz et al., one skilled in the art would not arrive at the presently claimed invention. Accordingly, amended Claims 64-69, 72-75, 78 and 80 and new Claims 84 and 85 are believed to be nonobvious, and are therefore patentable, over Heneghanet al., Bartz et al. and Chadwick, no matter how these references are considered or combined. Thus, withdrawal of the rejection of Claims 64-69, 72-75, 78 and 80 under 35 U.S.C. §103(a) is respectfully requested.

Claims 64-83 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims of copending Application No. 12/799,817. Upon resolution of all outstanding issues remaining in the Office Action, Applicants will consider the timely submission of a Terminal Disclaimer.

For the foregoing reasons, Claims 64-85 as presented herein is believed to be in condition for allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



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